

ABSTRACT OF THE DISCLOSURE**CONE SLACK ALLOCATOR FOR COMPUTING TIME BUDGETS**

Inventor:  
Francois Silve

5           Timing slack is allocated to edges of a timing graph  
by a converging loop that calls a Domain Restricted Timing  
Cone (DRTC) iterator. The DRTC iterator invokes a kernel  
program for each DRTC and computes time budgets for each  
edge. The time budgets are kept within established  
10 constraints of the corresponding DRTC. A timing verifier  
computes an amount of slack for each edge based on the  
time budget. An edge or arc of the timing graph is made  
permanent when the slack is less than a predetermined  
epsilon. The kernel program is based on any of a fast  
15 estimate, consideration of all time to end point (tte) and  
weight to endpoint (wte) pairs within the graph, and/or a  
set of tte wte pairs (or an envelope) that represent  
segments of a lowest slack to weight ratio.